

## CLAIMS

What is claimed is:

- 1 1. A method for allowing debugging capability in code instrumentation that takes a  
2 block of original code to produce a block of instrumented code, comprising the  
3 steps of:
  - 4 providing an instrumentation breakpoint in the block of original code;
  - 5 generating the block of instrumented code when the instrumentation  
6 breakpoint is reached;
  - 7 running the block of instrumented code until a debugging breakpoint is  
8 reached, and
  - 9 performing debugging functions on the block of instrumented code at the  
10 invoked debugging breakpoint.
- 1 2. The method of claim 1 wherein the step of providing comprises the step of  
2 replacing a first instruction in the block of original code by the instrumentation  
3 breakpoint.
- 1 3. The method of claim 2 wherein the first instruction comprises one or more  
2 instructions.
- 1 4. The method of claim 2 wherein the step of generating comprises the step of  
2 restoring the first instruction to the block of instrumented code.

1 5. The method of claim 1 wherein the step of providing comprises the step of  
2 providing a debugging breakpoint in either the block of original code or the block  
3 of instrumented code.

1 6. A computer-readable medium embodying instructions that cause a computer to  
2 perform a method for allowing debugging capability in code instrumentation that  
3 takes a block of original code to produce a block of instrumented code, the method  
4 comprising the steps of:

5 providing an instrumentation breakpoint in the block of original code;  
6 generating the block of instrumented code when the instrumentation  
7 breakpoint is reached;  
8 running the block of instrumented code until a debugging breakpoint is  
9 reached, and  
10 performing debugging functions on the block of instrumented code at the  
11 invoked debugging breakpoint.

1 7. The computer-readable medium of claim 6 wherein the step of providing  
2 comprises the step of replacing a first instruction in the block of original code by  
3 the instrumentation breakpoint.

1 8. The computer-readable medium of claim 7 wherein the first instruction comprises  
2 one or more instructions.

1    9.    The computer-readable medium of claim 7 wherein the step of generating  
2        comprises the step of restoring the first instruction to the block of instrumented  
3        code.

1    10.   The computer-readable medium of claim 6 wherein the step of providing  
2        comprises the step of providing a debugging breakpoint in either the block of  
3        original code or the block of instrumented code.

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